

ABSTRACT OF THE DISCLOSURE

A method for plating a homogenous copper-palladium alloy. The method includes providing a plating solution to an electrochemical plating cell. The plating solution includes a copper ion source at a concentration of between about 0.1 M and about 1.0 M and a palladium ion source at a concentration of between about 0.0005 M and about 0.1 M. The method further includes supplying an electrical deposition bias to a plating surface. The electrical deposition bias is configured to simultaneously deposit copper ions and palladium ions onto the plating surface.